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**The cognitive-affective-conative model of destination image:
A confirmatory analysis**

Dora Agapito (corresponding author)

Research Center for Spatial and Organizational Dynamics (CIEO), University of Algarve,
Portugal
dlagapito@ualg.pt

Patrícia Oom do Valle

Research Center for Spatial and Organizational Dynamics (CIEO), University of Algarve,
Portugal
pvalle@ualg.pt

Júlio da Costa Mendes

Research Center for Spatial and Organizational Dynamics (CIEO), University of Algarve,
Portugal
jmendes@ualg.pt

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ABSTRACT

Destination image influences tourist behaviour before, during and after travel, as it is an important instrument which contributes to tourists' loyalty. Although Gartner (1993) advocates that the cognitive, affective and conative dimensions of destination image are hierarchically interrelated, there is no empirical evidence to support the complete model. This study aims to test the hierarchical nature of the relationship between the dimensions of destination image. The results of structural equation modelling confirm Gartner's theoretical model, validating the theory that the influence of the cognitive component on the conative dimension is higher when mediated by the affective component, raising managerial implications.

KEYWORDS: Destination image, Cognitive-Affective-Conative Approach, Tourists

INTRODUCTION

Destination image consists of a subjective interpretation of a destination made by individuals which influences tourist behaviour (Beerli & Martín, 2004a; Bigné, Sánchez, & Sánchez, 2001; Bigné, Sánchez, & Sanz, 2009; Bosque & Martín, 2008; Cai, Wu, & Bai, 2004; Chi & Qu, 2008; Hunt, 1975; Tasci & Gartner, 2007; Tapachai & Waryszak, 2000). In fact, destination image plays an important role in tourist behaviour during the various moments which make up a tourist's experience: in the decision-making process of choosing a destination (*a priori*); in the process of comparing expectations with experience, which precedes the state of satisfaction and perceived quality (*in loco*); and in the process of revisiting, spreading word of mouth and recommending the destination to friends and family (*a posteriori*) (Galí & Donaire, 2005).

Although the construct has been studied extensively since the early 1970s (Stepchenkova & Mills, 2010), there is still a lack of empirical validation of the relationship between the dimensions of destination image. In the conceptual article entitled *Image Formation Process*, co-published in *Communications and Channel Systems in Tourism Marketing* (1993) and in the *Journal of Travel & Tourism Marketing* (1994), Gartner proposes the theory that three components – cognitive, affective and conative – make up a hierarchical causal model. Other researchers support this model (Dann, 1996; Pike & Ryan, 2004; Tasci & Gartner, 2007; Tasci, Gartner, & Cavusgil, 2007), but the modelled relationships have been only partially validated (Baloglu & McCleary, 1999; Beerli & Martín, 2004a, 2004b; Konecnik & Gartner, 2007; Li, Cai, Lehto, & Huang, 2010; Lin, Morais, Kerstetter, & Hou, 2007). In this context, despite the consensus among authors that destination image is a composite construct (Baloglu & McCleary, 1999; Beerli & Martín, 2004; Echtner & Ritchie, 1993; Stern & Krakover, 1993), several researchers have pinpointed the importance of studying the components of destination image separately, in order to better understand how people evaluate and act

towards places, and consequently to develop the potential pull of a destination (Baloglu & Brinberg, 1997; Cai et al., 2004; Li et al., 2004; Russell, 1980; Russell & Snodgrass, 1987). Therefore, this study aims to provide empirical evidence in order to confirm the hierarchical nature of the cognitive-affective-conative model proposed by Gartner (1993).

THEORETICAL BACKGROUND

In accordance with Gartner's model (1993), the literature points to the existence of three main dimensions of destination image – cognitive, affective and conative (Dann, 1996; Konecnik & Gartner, 2007; Pike & Ryan, 2004; Stepchenkova & Mills, 2010; Tasci & Gartner, 2007; Tasci et al., 2007). This model is in line with Boulding's research (1956) which states that an image comprises what one knows and thinks about an object (cognitive), how one feels about it (affective), and how one acts using this information (conative). Bridging the concept of image with holiday destinations, the cognitive (intellectual/perceptual) component relates to the individual's beliefs and knowledge about the attributes of the destination, while the affective component refers to the evaluation stage, concerning the feelings that the individual associates with the place of visit (Baloglu & Brinberg, 1997; Baloglu & McCleary, 1999; Beerli & Martín, 2004a, 2004b; Gartner, 1993). Finally, the conative component comprises action, i.e., the individual's actual conduct or intention to revisit and recommend the destination to others (Bigné et al., 2001; Gartner, 1993; Konecnik & Gartner, 2007; Pike & Ryan, 2004; Tasci & Gartner, 2007; Tasci et al., 2007), or even to spread positive word of mouth (Baker & Crompton, 2000) — that is, besides recommendation, if individuals have the intention to say positive things about the destination. In this context, researchers have related this component to loyalty (Bigné et al.,

2001, 2009; Bosque & Martín, 2008; Cai et al., 2004; Chen & Gursoy, 2001; Chi & Qu, 2008; Li et al., 2010; Oppermann, 2000).

Furthermore, the three dimensions contribute to the formation of a global image that is considered to be greater than the sum of its parts, and that is used by the consumer to simplify the task of decision-making (Baloglu & McCleary, 1999; Beerli & Martín, 2004a, 2004b; Echtner & Ritchie, 1993; Stern & Krakover, 1993). Nevertheless, the dimensions of destination image can be study separately in order to understand the complexity of the whole (Gartner, 1993; Kim & Yoon, 2003; Li et al., 2010; Russell & Snodgrass, 1987).

Conceptual Framework and Hypotheses

Both affect and cognition are mental responses to environmental stimuli, which form a dynamic and interactive system (Peter & Olson, 1999; Tasci et al., 2007). Following on from Gartner's theoretical model, Baloglu and McCleary (1999) provide a review of the research and empirical evidence which shows that the cognitive and affective elements are interrelated, and that affect is largely dependent on cognition. Other studies support these findings (Anand, Holbrook, & Stephens, 1988; Beerli & Martín, 2004a, 2004b; Holbrook, 1978; Li et al., 2010; Lin et al., 2007; Russell, 1980; Stern & Krakover, 1993). Therefore, the literature shows that the evaluative component of the destination image (affective dimension) arises from its attributes (cognitive dimension). Accordingly, a first research hypothesis is proposed:

H1. The cognitive image significantly influences the affective image of a destination.

Furthermore, researchers recognise that there is an association between destination image and the way in which travellers act towards a destination on the basis of cognition and affect (Beerli & Martín, 2004a, 2004b; Bigné et al., 2001, 2009; Konecnik & Gartner, 2007; Stepchenkova & Mills, 2010; Tasci & Gartner, 2007; Tasci et al., 2007). Nevertheless,

although several authors claim that the affective component should be separated from the perceptual component in order to better understand how people assess environments and places (Baloglu & Brinberg, 1997; Cai et al., 2004; Li et al., 2010; Russell, 1980; Russell & Snodgrass; 1987), there is a lack of empirical evidence that supports the influence of both the cognitive image and the affective image on the conative image. So, two additional research hypotheses can be formulated:

H2. The cognitive image significantly influences the conative image of a destination.

H3. The affective image significantly influences the conative image of a destination.

Considering the theoretical model proposed by Gartner (1993), the literature review indicates that the cognitive component has a higher effect on the conative image, via the affective component, since there is a hierarchical causal relationship between the three image components (Konecnik & Gartner, 1993; Pike & Ryan, 2004; Tasci et al., 2007). Indeed, Russell and Snodgrass (1987) argue that behaviour may be influenced by the affective quality of an environment, rather than directly by its objective properties, a theory which is supported by Cai et al. (2004) and Li et al. (2010). Furthermore, some research has shown that emotions might be better predictors of behaviour than the perceptual dimension (Yu & Dean, 2001). Nevertheless, there is still a need for empirical evidence on the hierarchical relationship between the three dimensions of destination image. Thus, a final research hypothesis needs to be tested:

H4. The affective dimension of a destination's image mediates the relationship between the cognitive and the conative dimension of a destination image.

The conceptual model and the hypotheses to be tested are present in Figure 1.

Figure 1 here

METHODOLOGY

Data collection and sample

The data collection was performed in Lagos, one of the 16 municipalities of the Algarve. The Algarve is the Portuguese region with the largest number of overnight stays by tourists (Statistics Portugal, 2010). Lagos is a local coastal destination, offering mainly sun and beach tourism. This study follows a two-stage process for data collection, using unstructured (qualitative) and structured (quantitative) methods, suggested by Jenkins (1999). The first phase of the research aimed to capture the main characteristics of the destination, using a construct elicitation technique, through a survey using open-ended questions. In this stage, 50 tourists were interviewed in the downtown area of Lagos, in July 2009. The two questions of the survey were adapted from Echtner and Ritchie's study (1993), as follows: (1) What images or characteristics come to mind when you think of Lagos as a holiday destination?, and (2) How would you describe the atmosphere or mood that you would expect to experience while visiting Lagos? The answers were coded into similar categories and selected if referred by more than 25% of respondents.

The second phase of the study aimed to measure the relevant attributes of the destination, using a structured questionnaire (Jenkins, 1999). The survey design was based on the information provided in the exploratory phase as well as on the literature review. It was decided to start with the collection made by Gallarza, Saura, and García (2002), to measure the cognitive component of the destination image through the attributes which were used in more than 12 studies, that were adequate to Lagos, as well as through expressions that met consensus by more than 25% of respondents surveyed in the first phase of data collection.

The questionnaire is composed of four groups. Group 1 involved the 20 attributes yielded in the first stage of the study and literature review. In order to measure the respondents' level

of agreement with these attributes, individuals were asked to respond to each item using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), as suggested by Bigné et al. (2009). In order to measure the affective dimension, a seven-point semantic scale was constructed using two emotional indicators (unpleasant-pleasant; sleepy-arousing), as pointed out in the literature. Russel, Ward, and Pratt (1981) suggest the use of two independent bipolar dimensions (unpleasant-pleasant; sleepy-arousing) to assess the affective response of individuals to physical environments. The authors' geometrical model posits that it is possible to identify and measure two secondary bipolar dimensions (gloomy-exciting; distressing-relaxing) from the two main scales, because they are a combination of the previous variables. Although the identified four bipolar scales are used in empirical studies on destination images in order to increase reliability (Baloglu et al., 1999; Baloglu & Brinberg, 1997), Beerli and Martin (2004), Pike and Ryan (2004), and Walmsley and Jenkins (1993) empirically show that the two main affective bipolar scales are sufficient to adequately represent the affective dimension of destination image. Therefore, these two scales form the group 2 of the questionnaire.

Group 3 was comprised of three questions which related to the conative component: intention to revisit (Would you return to Lagos in the next 12 months?), intention to recommend (Would you recommend Lagos as a tourism destination to your family and friends?), and intention to spread positive word of mouth (Would you say positive things about Lagos as a tourism destination to other people?). The respondents were asked to answer using a five-point Likert scale, ranging from 1 (definitively no) to 5 (definitively yes) (Agapito, Mendes & Valle, 2011). Group 4 referred to the socio-demographic information. The questions included in the questionnaire in the second stage of the study were submitted to a pre-test with 15 visitors and three academic experts in the field. Once collected, the questionnaires were subjected to minor adjustments regarding vocabulary and design.

A sample of 379 tourists was determined using the most conservative estimate for a single proportion (0.5), a confidence level of 95% and a margin of error of 5%. The questionnaire was applied using a cluster sampling method. This is a random sampling procedure in which all individuals are considered in a particular area or location as forming a cluster and have the opportunity to integrate the sample. It is particularly useful when the population in question has a strong geographical dispersion (Hill & Hill, 2008). In this study, the main attraction points in Lagos were identified using the two free maps distributed to visitors by the two existing Tourism Offices and City Hall, as well as the author's personal experience of the destination. After thirteen areas were identified, a random sample of six attraction points was identified. In the first week of August 2009, all tourists visiting the identified areas in a pre-determined timetable had the opportunity to answer the questionnaire. In the field, visitors willing to participate in the study, and depending on whether they had spent at least one night at the destination and were older than 17 years old, filled the questionnaire. Moreover, instructions were given to ensure only one person from each family completed the questionnaire, thus avoiding the risk of quasi doubling a specific answer. In addition, it was intended that the number of surveys filled out by men was similar to the number of surveys filled out by women. The data collection stopped when the number of inquired tourists reached the specified sample size.

Table 1 here

Data Analysis Methods

A structural equation model procedure was used to test the hierarchical nature of the relationship between the dimensions of destination image – cognitive, affective and conative. Partial least squares (PLS) path modelling was chosen to conduct the data analyses, using

Smart PLS 2.0 (Ringle, Wende, & Will, 2005). PLS regression is a recent technique (Chin, 1995, 1998; Chin, Marcolin, & Newsted, 2003) that allows estimation of models with latent variables. PLS is an appropriate choice for testing and validate a research model (Hutchinson, Lai, & Wang, 2009; Ko, Kirsch, & King, 2005). This component-based approach also allows working with variables not normally distributed and is robust for small-to-moderate sample sizes (Camarero, Garrido, & Vicente, 2010; Chin, 1998). Similarly to the covariance-based models or Lisrel models, the PLS regression analysis enables the simultaneous estimation of the structural model (that shows the relations among the latent variables) and the measurement model (that depicts the relation between each latent variable and the corresponding observed variables or indicators). This technique has been used by a growing number of researchers from various disciplines, including marketing (Henseler, Ringle, & Sinkovics, 2009; Vinzi, Chin, Henseler, & Wang, 2010).

In this study, the latent variables were the three dimensions of destination image – cognitive, affective and conative. In the measurement model, the indicators of the cognitive dimension were defined through the open-ended survey and the literature review. Regarding the latent variables of affective and conative dimensions, the indicators were defined according to previous literature. Therefore, the measurement models of these variables were modelled reflectively (Bigné et al., 2009; Bosque & Martín; 2009; Chen & Tsai, 2007; Chi & Qu, 2008; Kim & Yoon, 2003; Lee, 2009; Li et al., 2010; Lin et al., 2007).

In order to test the research hypotheses *H1* to *H3*, the significance of the estimated path coefficients in the structural model had to be observed. However, testing *H4* implies testing the indirect effect of cognitive image in conative image (through affective image). Indirect effects, also called mediating effects, take place when an independent variable, *X*,

has an impact on a third variable, Z, which then influences the dependent variable, Y (Henseler & Fassot, 2010). In this study, *H4* was tested through the sign and statistical significance of the indirect effect by adapting the PLS results using the two-step procedure proposed by Chin (2010). This procedure implies, in a first stage, to compute the indirect effect by multiplying the respective direct effects. Afterwards, the significance of the indirect effect can be estimated by using the bootstrap percentile, which produces an estimate of the percentile bootstrap confidence interval. The empirical percentiles $\alpha/2$ and $(1-\alpha/2)$ of the bootstrap replications can then be used as lower and upper limits of the confidence interval. In the present work, it was considered a significance level of 5% which means that the interval limits correspond to 2.5 and 97.5 percentiles. The software SPSS 18 was used to calculate the percentages mentioned. As explained by Schmidheiny (2012) this confidence interval can then be used to test bilateral hypotheses. In this case, rejecting the null hypothesis that the corresponding parameter is zero means that the indirect effect is statistically significant.

ANALYSIS AND RESULTS

In order to assess the constructs, a confirmatory factor analysis was conducted. Table 2 shows the results of the reliability analysis of the measurement model. All of the results exceed the recommended thresholds: composite reliability exceeds 0.7; Cronbach's alphas are larger than 0.5 (DeVellis, 2003) and the average variances extracted (AVEs) are greater than 0.5 (Dillon & Goldstein, 1984), with the exception of conative image, which has an AVE of 0.379, but presents high values on the former indicators.

Table 2 here

In assessing convergent validity, factor loadings lower than 0.5 were eliminated, and it was observed that each indicator loaded higher on its latent variable than on the others (Henseler

et al., 2009). This analysis provides evidence of a good correlation between each observed variable and the corresponding construct (Table 3).

Table 3 here

In terms of discriminant validity, the intercorrelations between the three variables, provided as an output of the PLS regression, were examined (Table 4). These values are lower than the square roots of the AVEs, suggesting discriminant validity (Chin, 1998), which assesses whether the latent variables are in fact measuring different concepts. These findings indicate that the measurement model has a good fit.

Table 4 here

In order to assess the structural model, the path coefficient values, their statistical significance and the coefficient determination (R^2) were examined. Figure 2 depicts the structural model with the estimated path coefficients on the model itself. The level of statistical significance of the coefficients of both the measurement and the structural models was determined through a bootstrap resampling procedure aiming to derive valid standard errors and *t*-values (1000 sub-samples were generated randomly). All of the *t*-values are very high, which implies that the path coefficients are statistically significant (*p*-values = 0.000) and, therefore, the results confirm Hypotheses 1, 2 and 3.

To test H4, the indirect effect was first determined by multiplying the corresponding direct effects. The percentile bootstrap was then computed in order to arrive at a 95% confidence interval; the null hypothesis that the corresponding parameter is zero was then tested based on that interval. This procedure produced an indirect estimate of cognitive image on conative image, through affective image, of 0.160 (i.e., $0.520 * 0.307$). In turn, through the percentile

bootstrap, a confidence interval of [0.09, 0.230] was determined, which helped to bring about the rejection of the corresponding null hypothesis (for a significance level of 5%), meaning that the indirect effect is significant, i.e., H4 is supported. If the indirect effect is positive and statistically significant, the total effect of cognitive image on conative image will be higher than the direct effect. So, another important finding is the magnitude of the total effect, which is obtained by summing the direct and the indirect effects. Accordingly, this effect equals 0.580 and exceeds the direct effect, i.e., the path coefficient that links the cognitive and conative image is significantly higher when it is mediated by the affective image. PLS gives the bootstrap t statistics for the total effect, which is 18.1445 (higher than 1.96), meaning that the total effect is significant.

Figure 2 here

DISCUSSION AND CONCLUSION

Discussion

This research highlights the importance of affect in destination image, supporting the claim that the willingness for positively react to the destination is higher when the visitor associates positive feelings to the destination, such as pleasure and arousal. Kim and Yoon (2003) suggest that the affective dimension has more impact on destination image formation than the perceptual component. Accordingly, several authors advocate that emotions have more influence in individual's behaviour than the cognitive component (Li et al., 2010; Russell & Snodgrass, 1987; Yu & Dean, 2001). In this context, due to the importance of the affective dimension in tourist behaviour, several authors propose methodological instruments for tourist segmentation based on the assessment of feelings regarding destinations (Chen, 2003; Bigné & Andreu, 2004).

In addition to the intention to revisit a destination, the results show that measurements of the conative dimension should also include the intention to recommend and to spread positive word of mouth as indicators of loyalty. This aspect might explain why studies such as Li et al. (2010) do not confirm Hypothesis 2 regarding the influence of the cognitive image on the behavioural component. The study in question specifically measured the intention to revisit the destination. In this regard, several authors claim that the intention to recommend is a better indicator for assessing loyalty, as there are factors which influence a tourist's decision-making other than a favourable destination image. In fact, whether or not they return to the destination, tourists can recommend the destination to family and friends (Agapito, Valle, & Mendes, 2011; Chen & Gursoy, 2001), taking into account that they are seen as the most credible agent and source of information (Gartner, 1993). In this context, this study confirms the findings of previous research, which focus on the importance of image for a tourist's loyalty to a destination (Cai et al., 2004).

Despite the composite nature of destination image, this research is in line with the studies which argue for the importance of studying the image components separately, in order to better understand how people evaluate and act towards places (Baloglu & Brinberg, 1997; Cai et al., 2004; Gartner, 1993; Li et al., 2010; Russel, 1980; Russell & Snodgrass, 1987). Indeed, if mental events are a composition of cognition, affection and conation components, each aspect can be prominent at specific moments (McDougall, 1923, cited in Hilgard, 1980). In this context, Hilgard (1980) considers useful the triple classification, in order to study and understand each dimension separately and consequently calling attention for possible neglected aspects. In this sense, the study of the three dimensions proposed by Gartner (1993) can be very useful for Destination Marketing Organizations (DMO's), which are responsible for positioning, branding and communicating destinations. On one hand, understanding the perspectives of tourists, rather than a static offer-based perspective, may help decision-makers

to build strong and long-term marketing strategies, based on the fact that mental images do not change easily (Pike, 2004). On the other hand, bearing in mind the interactive nature of the destination image dimensions (Peter & Olson, 1999; Tasci et al., 2007), periodic studies on destination image allow DMO's to follow the changes in tourists views, resulting from the destination and competitors actions as well as from personal motivations, adapting marketing strategies accordingly and remain competitive in the market.

Conclusion

The main purpose of this research was to confirm empirically the relationships between the cognitive, affective and conative dimensions of destination image, as proposed by Gartner (1993). By testing the components separately, interesting results appeared and emphasised the hierarchical nature of the cognitive, affective and conative dimensions of destination image.

The findings make a significant contribution to the current literature in two ways. First, this study provided empirical evidence supporting the Gartner's model (1993), which contributes to a stronger destination image theory, helping to understand how tourist images are hierarchically interrelated. Second, this research suggests managerial implications, as the results confirm that affect is crucial for increasing loyalty, and consequently for the development of a strong relationship between the tourist and the destination.

In this context, the assessment of the cognitive and the affective components of destination images can be used as predictor variables of tourists' behavioural reactions to destinations. Accordingly, in addition to the intellectual component, the study emphasizes the need to include the affect dimension in destination marketing strategies, developing adequate images for destinations, and building unique positioning upon affective characteristics, in a view to boost the global tourist experience, and, consequently, to increase the competitiveness of

destinations. These managerial implications claim for more research on the role of emotions in staging the tourist experience, branding and communicating destinations.

There are some limitations associated with this study which are important to acknowledge. Firstly, the development of the research in only one destination claims replication in different destinations, in order to validate results. Secondly, the application of the questionnaires during the month of August, considered high season of tourism in the Algarve, shows mainly a seasonal perspective (Baloglu & McCleary, 1999). Thus, there is a strong representation of British tourists, typically repeated visitors to the region, reinforcing the need to replicate the study at different times of the year. Related to this concern, further research may find interesting to test the proposed model separately regarding to first-time and repeated visitors, taking into consideration the individual's familiarity with the destination, since the destination images may differ within the two groups.

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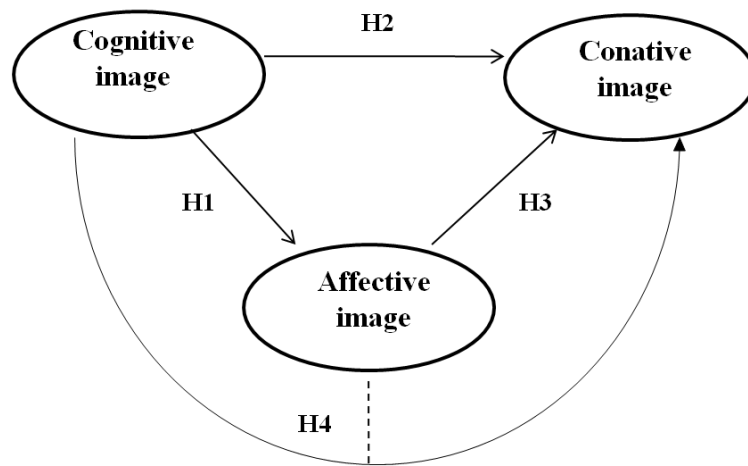


Figure 1 – Conceptual Model

Table 1 - Demographic Characteristics of the Sample

Characteristics	Distribution of answers
Gender	Female: 48.0%; Male: 52.0%
Age	18-24: 9.8%; 25-64: 77.0%; >64: 13.2%; Mean = 43.5 years old; Standard deviation = 16.18 years old
Educational qualification	Secondary: 40.4%; University degree: 51.2% ; Other: 8.4%
Marital status	Married/Living together: 60.4%; Single: 32.5%; Divorced: 5.0%; Widowed: 2.1%
Country of origin	Portugal: 33.0%; UK: 24.8%; Germany: 8.4%; Spain: 7.1%; France: 5.8%; Ireland: 5.3%; Other: 15.6%

Table 2 - Measurement model indicators

Construct	Item	Loading	Composite reliability	Cronbach's alpha	AVE (Average variance extracted)
Cognitive image	Friendly and receptive residents	0.694	0.858	0.818	0.379
	Interesting cultural heritage	0.666			
	Good restaurants	0.653			
	Good gastronomy	0.647			
	Interesting cultural events	0.607			
	Pleasant marina	0.598			
	Attractive historical centre	0.592			
	Good value for money	0.575			
	Good shopping opportunities	0.564			
	Good accommodation	0.542			
Affective image	Pleasure	0.903	0.805	0.540	0.676
	Arousal	0.733			
Conative image	Intention to recommend	0.889	0.867	0.767	0.687
	Positive word of mouth	0.866			
	Intention to revisit	0.721			

Table 3 - Convergent analysis of the measurement model

Item	Cognitive Image	Affective Image	Conative Image
Good accommodation	0.5454	0.2202	0.2738
Attractive historical centre	0.5885	0.3109	0.3664
Good shopping opportunities	0.5551	0.3091	0.2834
Interesting cultural events	0.5907	0.3522	0.3645
Good gastronomy	0.6565	0.2962	0.3608
Pleasant marina	0.592	0.322	0.3147
Interesting cultural heritage	0.6461	0.2946	0.4434
Good value for money	0.5805	0.2827	0.3043
Friendly and receptive residents	0.7013	0.492	0.4379
Good restaurants	0.6443	0.2376	0.3618
Pleasure	0.4837	0.902	0.5421
Arousal	0.3747	0.7346	0.2778
Intention to recommend	0.4865	0.474	0.8901
Positive word of mouth	0.4941	0.4648	0.8678
Intention to revisit	0.4507	0.3576	0.7174

Table 4 - Inter-construct correlations

	Affective image	Cognitive image	Conative image
Affective image	1		
Cognitive image	0.5198	1	
Conative image	0.5251	0.5796	1

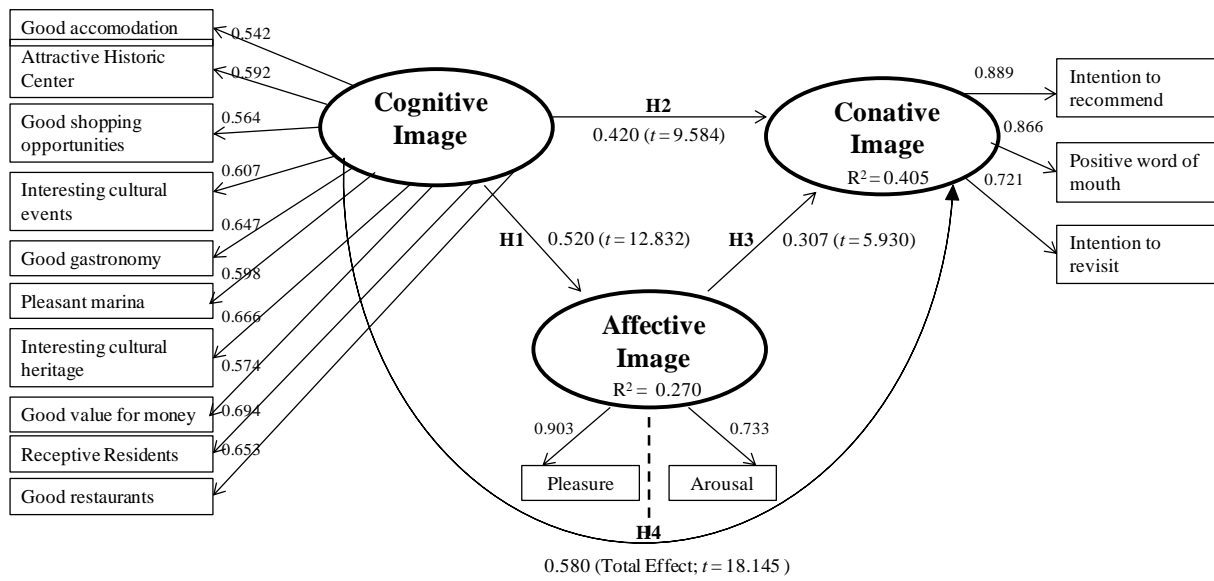


Figure 2 - Results of model testing